Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended) ~~A~~ An isolated vasoactive peptide, said peptide comprising a fragment of interleukin-2 substantially free of cytokine activity, said vasoactive peptide being capable of enhancing vascular permeability when ~~joined to a carrier~~ localized at a target site.

Claim 2. (Original) A dimer of the vasoactive peptide of claim 1.

Claim 3. (Currently amended) The peptide of claim 1 consisting essentially of residues 37 to 58 of amino acid sequence SEQ ID NO: ~~1~~ 3.

Claim 4. (Original) The peptide of claim 1 consisting essentially of amino acid sequence SEQ ID NO: 1.

Claim 5. (Original) The peptide of claim 1, wherein the peptide includes at least one cysteine residue and is capable of forming a dimer by a disulfide bridge.

Claim 6. (Currently amended) A conjugate comprising:

a) a delivery vehicle ~~having the ability to localize~~ that localizes at the site of neoplastic tissue; and

b) a vasoactive peptide, said peptide comprising a fragment of interleukin-2, substantially free of cytokine activity, said vasoactive peptide ~~being capable of~~ enhancing vascular permeability when ~~joined to a carrier~~ localized at a target site, said peptide being connected to said delivery vehicle.

Claim 7. (Original) The conjugate of claim 6, wherein the delivery vehicle is a tumor specific monoclonal antibody.

Claim 8. (Original) The conjugate of claim 7, wherein the monoclonal antibody is selected from the group consisting of a murine antibody, a human antibody, and a chimera of human and murine antibodies.

Claim 9. (Original) The conjugate of claim 7, wherein the monoclonal antibody is selected from the group consisting of Lym-1, Lym-2, TNT-1, TNT-2, or TV-1.

Claim 10. (Original) The conjugate of claim 7, further comprising an antineoplastic agent attached to the delivery vehicle.

Claim 11. (Original) The conjugate of claim 10, wherein said antineoplastic agent is selected from the group consisting of drugs, toxins, and radioisotopes.

Claim 12. (Currently amended) A fusion protein comprising:

a) a delivery vehicle ~~having the ability to localize~~ that localizes at the site of neoplastic tissue, the vehicle having at least one terminal amino acid; and

b) at least one vasoactive peptide according to claim 1, ~~said peptide comprising a fragment of interleukin-2, substantially free of cytokine activity, said vasoactive peptide being capable of enhancing vascular permeability when joined to a carrier~~, the peptide being joined to at least one terminal amino acid of the delivery vehicle ~~by genetic engineering~~.

Claim 13. (Original) The fusion protein of claim 12 further comprising an amino acid linker joining the delivery vehicle and the vasoactive peptide.

Claim 14. (Original) The fusion protein of claim 12, wherein the at least one vasoactive peptide comprises two tandemly linked vasoactive peptides.

Claim 15. (Original) The fusion protein of claim 14 further comprising an amino acid spacer between the two tandemly linked vasoactive peptides.

Claim 16. (Original) The fusion protein of claim 12, wherein the delivery vehicle comprises at least one antigen binding domain of an immunoglobulin.

Claim 17. (Original) The fusion protein of claim 12, wherein the delivery vehicle comprises a human-mouse chimeric monoclonal antibody.

Claim 18. (Currently amended) A vector for the expression of fusion protein, comprising:

a) a fusion protein sequence comprising;

1) a delivery vehicle encoding sequence, wherein said delivery vehicle [having the ability to localize] localizes at the site of neoplastic tissue, and

2) a vasoactive peptide encoding sequence, ~~said vasoactive peptide comprising a fragment of interleukin-2, substantially free of cytokine activity, said vasoactive peptide being capable of enhancing vascular permeability when joined to a carrier, said peptide encoding sequence having substantial homology to SEQ ID NO. 2~~ comprising DNA encoding the vasoactive peptide of claim 1, said peptide encoding sequence having a reading frame ~~that permits co-expression of at least one segment of~~ aligned with the reading frame of said delivery vehicle encoding sequence; and

b) an expression vector having ~~an insertion site for~~ at least one sequence that directs expression of the fusion protein sequence ~~and being capable of expressing, the fusion protein~~ in cells.

Claim 19. (Currently amended) A cell line [capable of] for expressing the fusion protein, comprising:

a) the expression vector of claim 18; and

b) eukaryotic cells ~~capable of~~ harboring the expression vector and expressing the fusion protein.

Claims 20-25 (Canceled)

Claim 26. (Currently amended) A therapeutic kit, comprising:

a) a conjugate, said conjugate comprising:

1) a delivery vehicle ~~having the ability to localize~~ that localizes at the site of neoplastic tissue, and

2) ~~a~~ the vasoactive peptide of claim 1, ~~said peptide comprising a fragment of interleukin-2, substantially free of cytokine activity, said vasoactive peptide being capable of~~

~~enhancing vascular permeability when joined to a carrier,~~ said peptide being connected to said delivery vehicle; and

b) an antineoplastic therapeutic agent.

Claim 27. (Currently amended) A diagnostic kit, comprising:

a) a conjugate, said conjugate comprising:

1) a delivery vehicle ~~having the ability to localize~~ that localizes at the site of neoplastic tissue, and

2) ~~a~~ the vasoactive peptide of claim 1, ~~said peptide comprising a fragment of interleukin-2, substantially free of cytokine activity, said vasoactive peptide being capable of enhancing vascular permeability when joined to a carrier,~~ said peptide being connected to said delivery vehicle; and

b) a tumor imaging agent.